



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,036	12/02/2003	Ake Holm	150-134	2607

7590

01/19/2006

Steven S. Payne  
8027 Iliff Drive  
Dunn Loring, VA 22027

EXAMINER
----------

HUG, ERIC J

ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/725,036	<b>Applicant(s)</b> HOLM ET AL.	
	<b>Examiner</b> Eric Hug	<b>Art Unit</b> 1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12 and 15-19 is/are rejected.
- 7) ☐ Claim(s) 13, 14 and 20-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Response to Amendment**

The following is in response to the amendment filed on November 1, 2005.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11, 12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwerdt (US 3,470,064) in view of Sinclair (US 1,814,864) or McDonnell (US 1,903,311).

Schwerdt discloses a spray receiving device for a dandy roll in a papermaking machine. Figure 1 shows Fourdrinier wire 1, a dandy roll 3, a spray of water 32 projected from the rotating dandy roll, and a cylinder 4 that is axially parallel to the dandy roll. Cylinder 4 is mounted so that its face intersects the spray of water. Water that impinges on the cylinder face is entrained by the rotating cylinder to prevent the water from falling onto the formed web on the wire. A wiper 51 and trough 5 are mounted near the cylinder to remove water therefrom. The cylinder is supported on telescopic columns so that it can be moved vertically to a desired position above the wire. The cylinder can also be positioned at a desired angle by arms hingedly attached to the columns. This permits the cylinder position with respect to the spray path to be adjusted for variations in the spray path.

Regarding the claimed feature of a means for detaching and further conveying water from the dandy roll, Schwerdt does not disclose such a means. However, the use of a device to remove water from a dandy roll is well known in the art, as exemplified by the supporting references Sinclair and McDonnell. Sinclair teaches using wiper strips with applied vacuum and

Art Unit: 1731

McDonnell teaches using a brush or doctor blade. Applicant has also disclosed as prior art the use of a doctor blade. Such additional devices would be obvious to facilitate the removal of water from the dandy roll. Since the invention of Schwerdt can be used to collect water thrown from any rotating roll tangentially engaging a web (column 3, lines 40-45), the use of cylinder 5 to collect sprayed water from a dandy roll does not preclude providing additional means of water removal along the dandy roll.

Regarding the feature of locating the rotating roll for capturing water under an imagined horizontal plane which goes through the center of the dandy roll, it is not clear from the drawing that this is the case in Schwerdt. However, it would be envisioned by one skilled in the art that the roll configuration of Schwerdt provides for at least this claimed feature, particularly since the position of the cylinder 5 is adjustable depending on the operating conditions and the path of the spray. Such a location would result from routine optimization depending on the spray path and also on the sizes of the dandy roll 3 and cylinder 5.

Regarding claim 12, the dandy roll and cylinder are spaced apart and run parallel to one another along the width of the Fourdrinier wire.

Regarding claims 15 and 16, Schwerdt discloses typical paper machine speeds of up to 900 m/min, and Schwerdt also discloses that the rotational speed of the cylinder 5 is preferably not smaller than the machine speed (column 3, lines 32-35). Therefore depending on the machine speed, the peripheral speed of the cylinder may fall within the claimed speed range. Such a speed may also be obtained through optimization.

Regarding claims 17 and 18, although the structural features of cylinder 5 are not disclosed, it would be obvious to one skilled in the art that cylinder 5 must be made of a material

Art Unit: 1731

suitable for capturing water, and that it must have a smooth surface for all the water to be subsequently removed by wiper 5.

Regarding claim 19, sliding bars for vertical and horizontal movement are described above.

***Allowable Subject Matter***

Claims 13, 14, and 20-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The claims would be allowable for further providing a cover and a doctor blade positioned above the center line of the dandy roll in combination with a rotating roll positioned under the center line of the dandy roll.

***Response to Arguments***

Applicant's arguments November 1, 2005 have been fully considered.

The rejection of claims 13, 14 and 20-23 under 35 U.S.C. 112, second paragraph, has been overcome by amendment.

Applicant's arguments have not overcome the rejection of claims 11, 12, and 15-19 under 35 U.S.C. 103(a) over Schwerdt (US 3,470,064) in view of Sinclair (US 1,814,864) or McDonnell (US 1,903,311), set forth previously and reiterated above.

It is the examiner's position that the claimed "wherein the rotating roll is located in a position completely under an imagined horizontal plane which goes through the center of the dandy roll" is a matter of relative size difference between the dandy roll and the rotating roll. The Federal Circuit's predecessor court, the CCPA, has repeatedly held that presumption of obviousness was formed, based on the ken of routineer, whenever a difference was deemed minor. See *In re Rose*, 105 USPQ 237 (CCPA 1955), where it was held that the size of an article is not a matter of invention. One skilled in the art would recognize that the size of the dandy roll on a papermachine can vary greatly depending on the size and speed of the papermachine and the type of paper being produced. To illustrate this, a copy of a brochure from J. J. Plank, a producer of dandy rolls, is provided with this office action. This brochure shows that dandy rolls can be constructed having a diameter between 7 to 96 inches. One skilled in the art would also recognize that the device of Schwerdt is not limited by the size of the dandy roll, and is only limited by the speed of the wire and the ability of the device to catch the spray coming off the surface of the dandy roll. Note for example in column 3, lines 27-45 of Schwerdt, which says:

"It is a common feature of both illustrated embodiments of the invention that

the spray of water thrown by the dandy-roll is intercepted by a moving surface which is obliquely transverse to the paths of the water particles and moves in a direction which is obliquely upwardly inclined relative to the direction of wire movement. The optimum speed of the receiving face is best determined experimentally, but it should normally not be smaller than the speed of the machine wire in order to entrain all spray water. The collected water then forms a film which is wiped from the receiving face. A build-up of stock stalactites of the type sometimes observed with stationary baffles is impossible with the device of this invention. The origin of the water spray is not in itself at the core of this invention, and it will be appreciated that the invention can protect the forming paper web from defects caused by water droplets which are thrown from any rapidly rotating roll tangentially engaging the web as it travels on the wire."

***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on applications filed on June 11, 2002 and June 12, 2001. It is noted, however, that applicant has not filed certified copies of the applications as required by 35 U.S.C. 119(b).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



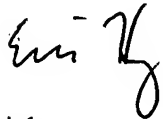
Art Unit: 1731

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



jeh